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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,501	09/01/2000	Yuji Takahashi	PM 273792	7004

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EXAMINER

JACKSON JR, JEROME

ART UNIT PAPER NUMBER

2815

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/654,501	<b>Applicant(s)</b> TAKAHASHI ET AL.	
	<b>Examiner</b> Jerome Jackson Jr.	<b>Art Unit</b> 2815	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 89-108 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 89-108 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/24/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 97 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 97 appears to contradict claim 95 from which it depends. The intended structure is vague and indefinite as the third light source appears to be in both lead frames.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 89,92-94,99,101-103,106 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Soules.

Soules teaches a blue light emitting GaN first light source, and second and third light sources comprising red and green phosphors in a resin material. The combination produces white light. See the specification in columns 5 and 6. Claim 89 is therefor anticipated. Claim 92-94 are rejected as leds are normally placed in a cup shaped lead frame to enable reflection and emission of light, as in the admitted prior art on page 1 of the specification. Claim 99 is rejected as the device comprises a "chip". Claims 101-103

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are basically functional descriptions and do not add any patentable structure over Soules. Claim 106 is rejected as the sealing member of Soules acts as a lens.

Claims 89,91-94,99,101-107 are rejected under 35 U.S.C. 102(e) as being anticipated by Komoto '824.

Komoto teaches a blue emitter (col.15) and multiple fluorescent species material in a coating resin to produce white light. Claim 89 is anticipated. Claim 91 is rejected as Komoto teaches a concentration gradient of fluorescent material (column 24). Claims 92 and 93 are rejected because Komoto shows a "cup" shaped mounting in figure 3 for example. Claim 94 is rejected because the resin material "surrounds" the fluorescent material and therefor the light sources. Claim 99 is rejected as the Komoto device is a "chip-type LED", or can be so labeled. Claims 101 and 102 are rejected as per claim 89 above. Claim 103 is also rejected as Komoto teaches a white light emitter with a blue light emitting first light source. Claims 104 and 105 are rejected as Komoto teaches InGaN quantum well light emitting material. Multi-quantum well design is obvious (column 16) for efficiency and control over emission wavelength. Claim 106 is rejected as lens focusing is practiced by Komoto. Claim 107 is rejected over figure 27C, for example.

Claims 89,92,93,95-99 and 108 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Marshall '949.

Marshall shows a two chip white light emitter including blue and red emitting chips and a green fluorescent material absorbing some blue light to emit green. Claims 89,92,93,95-99 and 108 are rejected.

Claims 90 and 100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall or Komoto in view of Hampden-Smith '123.

Hampden-Smith suggests ZnS:Eu, or ZnS:Cu,Al for higher luminescence and good dispersability (col.3 lines 1-4). It would have been obvious to have practiced these compounds in devices as Marshall or Komoto for these advantages. Claims 90 and 100 are rejected.

Claims 95-98,108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall in view of Komoto.

Marshall does not specifically state whether the multiple light sources are located in the same lead frame cup or in separate cups. Nevertheless, one of ordinary skill is fairly skilled in routine led emitter design and it would be considered routine to practice either cup design. Furthermore, Komoto shows various designs in his figures with multiple chips in one cup or in separate cups. Claims 95-98,108 are obvious structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Jackson Jr. whose telephone number is 571-272-1730. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jj

  
JEROME JACKSON  
PRIMARY EXAMINER